

Notice of Allowability	Application No.	Applicant(s)	
	10/001,688	SANA ET AL.	
	Examiner	Art Unit	
	Joyce Tung	1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/30/05.
2. ☒ The allowed claim(s) is/are claims 6-8, 15-24 (final claims 1-13).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

REASONS FOR ALLOWANCE

The applicant's Reply Brief to the Examiner's Answer has been entered. Claims 6-8 and 15-24 are pending.

1. The following is an examiner's statement of reasons for allowance:

Concerning claims 6-8, and 15-18, no prior art has been found teaching or suggesting the method that allows a probe and target to specifically hybridize at a temperature lower than their standard hybridization temperature in the presence of a chemical component of the formula: $R(NH_2)C=O$, where R is an amino or a methyl group.

Concerning claim 19, no prior art has been found teaching or suggesting the method that allows a probe and target to hybridize at a temperature lower than their standard hybridization temperature in the presence of acetamine.

Concerning claims 20-24, no prior art has been found teaching or suggesting the method for detecting nucleic acids using microarray with a hybridization buffer comprising urea.

The closest prior art is the references of Brenner in view of Oliva et al. The references cannot be combined because Brenner explicitly states against the use of reagents that alter base-specific stability of nucleic acid duplexes in hybridization assays, specifically in line 22-28 of column 2. Brenner states that the use of reagents that alter base-specific stability of nucleic acid duplexes would be undesirable because their effects are limited and can be incompatible with further manipulations. Further, Brenner presents his invention as a system, which "minimized the occurrence of false positive and false negative signals without the need to employ special reagents for altering natural base pairing".

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The appellants acknowledge that Brenner does not specifically mention urea as an undesirable agent. However, at the time of filing, Brenner's warnings about the use of base-stabilizing agents in array-based hybridization assays would have clearly encompassed urea. As such, the teachings of Brenner would have been read by one of skill in the art as a teaching away from using urea. Thus, the instant claims are non-obvious over the references of Brenner in view of the reference of Oliva et al.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (571) 272-0790. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Joyce Tung JT
March 14, 2006


KENNETH R. HORLICK, PH.D
PRIMARY EXAMINER

3/15/06